(FILE 'HOME' ENTERED AT 11:11:46 ON 15 JUN 1999)

FILE 'MEDLINE' ENTERED AT 11:12:03 ON 15 JUN 1999

		E	TRAUNECKER/AU
L1	30	S	E4 OR E9
		E	KARJALAINEN/AU
L2	106	S	E17-E19
L3	17	S	L1 AND L2
L4	4	S	L3 AND NATURE/SO
L5	4951	S	(MULTIMER? OR PENTAMER?)
L6	75406	S	(IGM OR MU)
L7	275	S	L5 AND L6
L8	159	S	L7 NOT PY> 1989
L9	142	S	L8 NOT PY>1988
L10	7	S	L8 AND (CHIMER? OR CD?)

L9 ANSWER 1 OF 142 MEDLINE
TI An ELISA for IgA, IgG and **IgM**-RF measurement. I. Parameters of the assay.

L9 ANSWER 2 OF 142 MEDLINE
TI Low molecular weight **IgM** in juvenile chronic arthritis.

L9 ANSWER 3 OF 142 MEDLINE
TI Effects of various forms of monoclonal anti-Fc gamma R II (2.4G2) on B lymphocyte responses.

L9 ANSWER 4 OF 142 MEDLINE
TI Plasma and platelet von Willebrand factor defects in uremia [see comments].

L9 ANSWER 5 OF 142 MEDLINE
TI On the interaction of the first complement component C1 and its subunit C1q with solid-phase **IgM** immune complexes.

L9 ANSWER 6 OF 142 MEDLINE
TI C1q binding by a high affinity anti-fluorescein murine monoclonal **IgM** antibody and monomeric subunits.

L9 ANSWER 7 OF 142 MEDLINE
TI Thrombotic thrombocytopenia with von Willebrand factor deficiency induced by botrocetin. An animal model.

L9 ANSWER 8 OF 142 MEDLINE
TI Distribution of radiolabeled human and mouse monoclonal **IgM** antibodies in murine models.

L9 ANSWER 9 OF 142 MEDLINE
TI Expression, distribution and specificity of Fc receptors for **IgM** on murine B cells.

L9 ANSWER 10 OF 142 MEDLINE
TI Cloning and expression of a cDNA for human thioredoxin.

L9 ANSWER 11 OF 142 MEDLINE
TI Quantitation of human serum polymeric IgA, IgA1 and IgA2 immunoglobulin by
enzyme immunoassay.

L9 ANSWER 12 OF 142 MEDLINE
TI C1 binding by murine **IgM**. The effect of a Pro-to-Ser exchange at residue 436 of the **mu**-chain.

L9 ANSWER 13 OF 142 MEDLINE
TI On the structure of polymeric **IgM**.

L9 ANSWER 14 OF 142 MEDLINE
TI Transient expression of **pentameric IgM** on the surface of NZB B cells.

L9 ANSWER 15 OF 142 MEDLINE
TI [Clinical significance of class M immunoglobulin monomers and **pentamers** in infants in the early neonatal period].
Klinicheskoe znachenie monomerov i **pentamera** immunoglobulinov

klassa M u novorozhdennykh v rannem neonatal'nom periode.

L9 ANSWER 16 OF 142 MEDLINE
TI Large quantities of low molecular weight **IgM** in mixed cryoglobulinaemia.

L9 ANSWER 17 OF 142 MEDLINE
TI Effect of virucidal heat treatment on proteins in human factor VIII concentrates.

L9 ANSWER 18 OF 142 MEDLINE
TI The contribution of constant region domains to the binding of murine **IgM** to Fc **mu** receptors on T cells.

L9 ANSWER 19 OF 142 MEDLINE
TI Immunological features of minor salivary gland saliva.

L9 ANSWER 20 OF 142 MEDLINE
TI Production and secretion of immunoglobulins in the gastrointestinal tract.

L9 ANSWER 21 OF 142 MEDLINE
TI Purification of polymeric immunoglobulin from cell culture supernatants by affinity chromatography using secretory component.

L9 ANSWER 22 OF 142 MEDLINE
TI Internalization of interleukin 2 (IL-2) by high affinity IL-2 receptors is required for the growth of IL-2-dependent T cell lines.

L9 ANSWER 23 OF 142 MEDLINE
TI Polymeric immunoglobulin M is secreted by transfectants of non-lymphoid cells in the absence of immunoglobulin J chain.

L9 ANSWER 24 OF 142 MEDLINE
TI TPA-induced differentiation of chronic lymphocytic leukemia cells: studies on **mu**-chain expression.

L9 ANSWER 25 OF 142 MEDLINE
TI Characterization of anti-acetylcholine receptor antibody activity in patients with anti-mitochondrial antibodies.

L9 ANSWER 26 OF 142 MEDLINE
TI Identification of polypeptides encoded by an Escherichia coli locus (hflA) that governs the lysis-lysogeny decision of bacteriophage lambda.

L9 ANSWER 27 OF 142 MEDLINE
TI The transport and metabolism of bovine **IgM**.

L9 ANSWER 28 OF 142 MEDLINE
TI **IgM** reassociation in the absence of J-chain.

L9 ANSWER 29 OF 142 MEDLINE
TI Lack of synthesis of **pentamer IgM** in Xenopus oocytes after injection of poly(A)+ RNA from hybridoma cells.

L9 ANSWER 30 OF 142 MEDLINE
TI Interferon-gamma enhances expression of secretory component, the epithelial receptor for polymeric immunoglobulins.

L9 ANSWER 31 OF 142 MEDLINE
TI Idiotypic self binding of a dominant germline idiotype (T15). Autobody

activity is affected by antibody valency.

L9 ANSWER 32 OF 142 MEDLINE
TI Altered antigenicity of human monoclonal antibodies derived from human-mouse heterohybridomas.

L9 ANSWER 33 OF 142 MEDLINE
TI Monomeric (7S) **IgM** found in the serum of rheumatoid arthritis patients share idiotypes with **pentameric** (19S) monoclonal rheumatoid factors.

L9 ANSWER 34 OF 142 MEDLINE
TI Effect of fibronectin and von Willebrand factor on the adhesion of human fixed washed platelets to collagen immobilized beads.

L9 ANSWER 35 OF 142 MEDLINE
TI Accessibility of the promoter sequence in the J-chain gene is regulated by chromatin changes during B-cell differentiation.

L9 ANSWER 36 OF 142 MEDLINE
TI Appearance of low molecular weight **IgM** during course of infective endocarditis.

L9 ANSWER 37 OF 142 MEDLINE
TI A model system for peptide hormone action in differentiation: interleukin 2 induces a B lymphoma to transcribe the J chain gene.

L9 ANSWER 38 OF 142 MEDLINE
TI A region of the immunoglobulin-**mu** heavy chain necessary for forming **pentameric IgM**.

L9 ANSWER 39 OF 142 MEDLINE
TI beta-Glucuronidase release from human monocytes induced with aggregated immunoglobulins of different classes.

L9 ANSWER 40 OF 142 MEDLINE
TI Immunological identification of avian monomeric and polymeric immunoglobulin M and immunoglobulin A after fractionation on sodium dodecylsulfate pore gradient polyacrylamide gels.

L9 ANSWER 41 OF 142 MEDLINE
TI Low molecular weight **IgM**. Detection using immunoblotting.

L9 ANSWER 42 OF 142 MEDLINE
TI Comparisons of pooled polyclonal rabbit anti-human C3d with four monoclonal mouse anti-human C3ds. I. Preparation, purification and binding properties.

L9 ANSWER 43 OF 142 MEDLINE
TI The human gastrointestinal secretory immune system in health and disease.

L9 ANSWER 44 OF 142 MEDLINE
TI Cellular and molecular studies on ataxia-telangiectasia lymphoblastoid cell lines.

L9 ANSWER 45 OF 142 MEDLINE
TI Transformation of B and non-B cell lines with the 2,4,6,-trinitrophenyl (TNP)-specific immunoglobulin genes.

L9 ANSWER 46 OF 142 MEDLINE
TI The coming of age of the immunoglobulin J chain.

L9 ANSWER 47 OF 142 MEDLINE
TI J-chain-like com[redacted]ent in 18-S immunoglobulin of [redacted] skate Raja kenojei, a
cartilaginous fish.

L9 ANSWER 48 OF 142 MEDLINE
TI Rabbit-mouse hybridomas secreting intact rabbit immunoglobulin.

L9 ANSWER 49 OF 142 MEDLINE
TI Changes in the platelet membrane glycoprotein IIb.IIIa complex during platelet activation.

L9 ANSWER 50 OF 142 MEDLINE
TI Pronase and proteinase K digestion of human immunoglobulin M.

=> d his

(FILE 'HOME' ENTERED AT 11:11:46 ON 15 JUN 1999)

FILE 'MEDLINE' ENTERED AT 11:12:03 ON 15 JUN 1999

		E	TRAUNECKER/AU
L1	30	S	E4 OR E9
		E	KARJALAINEN/AU
L2	106	S	E17-E19
L3	17	S	L1 AND L2
L4	4	S	L3 AND NATURE/SO
L5	4951	S	(MULTIMER? OR PENTAMER?)
L6	75406	S	(IGM OR MU)
L7	275	S	L5 AND L6
L8	159	S	L7 NOT PY> 1989
L9	142	S	L8 NOT PY>1988

L9 ANSWER 22 OF 142 MEDLINE
AB During the growth of interleukin 2 (IL-2)-dependent T cells IL-2 binding is followed by internalization of the complex between IL-2 and the high affinity IL-2 receptor (HA-IL-2R). The respective role of IL-2 binding to HA-IL-2R and internalization of the complex has been examined. Monoclonal antibody 7D4 (**IgM**) blocks IL-2-dependent T cell growth although it does not affect IL-2 binding to HA-IL-2R. We show here that 7D4 inhibits T cell growth by blocking IL-2 internalization by HA-IL-2R. In contrast, Fab fragments prepared from 7D4 neither block IL-2 internalization nor inhibit T cell growth. Monoclonal 5A2, that recognizes an epitope related to the IL-2 binding site as well as its Fab fragment, inhibits T cell growth and IL-2 internalization. Monoclonal antibody 7D4, because of its **pentameric** structure, probably aggregates the IL-2R at the T cell surface and therefore prevents it internalization. The data presented in this paper suggest that simple occupancy of HA-IL-2R by IL-2 is not sufficient to transduce the T cell growth signal; this signal is transmitted only after internalization of the IL-2/HA-IL-2R complex.

L9 ANSWER 38 OF 142 MEDLINE
AB In order to define the molecular requirements for **IgM** **pentamer** formation, we have isolated several mutant hybridomas which produce predominantly monomeric **IgM**. For one such mutant, 102, we synthesized a cDNA clone of its **mu**-mRNA, and found an in-frame 39-bp deletion, which thus encodes a **mu**-chain lacking amino acids 550-562, a region spanning the fourth constant domain and the tail of the **mu**-chain. To prove that this deletion is sufficient to block **pentamer** formation, we used site-directed mutagenesis to construct a **mu**-gene lacking these 39 bp, and have shown that the expression of this altered **mu**-gene results in the production of monomeric **IgM**.

```
     (FILE 'USPAT' ENTERED AT 10:53:52 ON 15 JUN 1999)
L1             1 S 5098833/PN
L2             1 S L1 AND (MULTIPLE? OR MULTIMER?)
L3             0 S L1 AND (HETEROTETRAMER? OR TETRAMER OR TETRAMERS)
L4             1 S 5155027/PN
L5             1 S L1 AND (MULTIPLE? OR MULTIMER?)
L6             0 S L4 AND (MULTIPLE? OR MULTIMER?)
L7             0 S L4 AND (HETEROTETRAMER? OR TETRAMER? OR TETRAMERS OR HET
ERO
```

L4 ANSWER 2 OF 4 MEDLINE

TI Highly efficient neutralization of HIV with recombinant CD4-immunoglobulin molecules.

AU **Traunecker A**; Schneider J; Kiefer H; **Karjalainen K**

SO **NATURE**, (1989 May 4) 339 (6219) 68-70.
Journal code: NSC. ISSN: 0028-0836.

AB The human immunodeficiency virus type 1 (HIV-1) exploits the cell surface CD4 molecule to initiate the infection which can lead, eventually, to acquired immunodeficiency syndrome (AIDS). The HIV-1 envelope protein, gp120, interacts specifically with CD4 and soluble CD4 molecules have been shown to inhibit HIV infectivity in vitro. Effective inhibition in vivo may, however, require more potent reagents. We describe here the generation of molecules which combine the specificity of CD4 and the effector functions of different immunoglobulin subclasses. Replacing the VH and CH1 domains of either mouse gamma 2a or mu heavy chains with the first two N-terminal domains of CD4 results in molecules that are secreted in the absence of any immunoglobulin light chains. We find that the pentameric CD4-IgM chimaera is at least 1,000-fold more active than its dimeric CD4-IgG counterpart in syncytium inhibition assays and that effector functions, such as the binding of Fc receptors and the first component of the complement cascade (Clq), are retained. Similar chimaeric molecules, combining CD4 with human IgG were recently described by Capon et al., but these included the CH1 domain and did not bind Clq. Deletion of the CH1 domain may allow the association and secretion of heavy chains in the absence of light chains, and we suggest that the basic design of our constructs may be generally and usefully applied.

L2 ANSWER 5 OF 5 MEDLINE
TI High-frequency transformation of yeast: autonomous replication of hybrid DNA molecules.
AU **Struhl K**; Stinchcomb D T; Scherer S; Davis R W
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, **(1979 Mar)** 76 (3) 1035-9.
Journal code: PV3. ISSN: 0027-8424.

=> d ab 5

L2 ANSWER 5 OF 5 MEDLINE
AB A set of vector DNAs (Y vectors) useful for the cloning of DNA fragments in Saccharomyces cerevisiae (yeast) and in Escherichia coli are characterized. With these vectors, three modes of yeast transformation are defined. (i) Vectors containing yeast chromosomal DNA sequences (YIp1, YIp5) transform yeast cells at low frequency (1--10 colonies per microgram) and integrate into the genome by homologous recombination; this recombination is reversible. (ii) Hybrids containing endogenous yeast plasmid DNA sequences (YEp2, YEp6) transform yeast cells at much higher frequency (5000--20,000 colonies per microgram). Such molecules replicate autonomously with an average copy number of 5--10 covalently closed circles per yeast cell and also replicate as a chromosomally integrated structure. This DNA may be physically isolated in intact form from either yeast or E. coli and used to transform either organism at high frequency. (iii) Vectors containing a 1.4-kilobase yeast DNA fragment that includes the centromere linked trp1 gene (YRp7) transform yeast with an efficiency of 500--5000 colonies per microgram; such molecules behave as minichromosomes because they replicate autonomously but do not integrate into the genome. The uses of Y vectors for the following genetic manipulations in yeast are discussed: isolation of genes; construction of haploid strains that are merodiploid for a particular DNA sequence; and directed alterations of the yeast genome. General methods for the selection and the analysis of these events are presented.

L4 ANSWER 1 OF 3 MEDLINE

TI Transformation in yeast: development of a hybrid cloning vector and isolation of the CAN1 gene.

AU **Broach J R**; Strathern J N; Hicks J B

SO GENE, **(1979 Dec)** 8 (1) 121-33.
Journal code: FOP. ISSN: 0378-1119.

AB We have constructed a plasmid, YEp13, which when used in conjunction with transformation in yeast is a suitable vector for isolating specific yeast genes. The plasmid consists of pBR322, the LEU2 gene of yeast, and a DNA fragment containing a yeast origin of replication from 2 mu circule. We have demonstrated the utility of this cloning system by isolating the yeast gene encoding the arginine permease, CAN1, from a pool of random yeast DNA fragments inserted into YEp13.

(FILE 'USPAT' ENTERED AT 10:53:52 ON 15 JUN 1999)

L1 1 S 5098833/PN

L2 1 S L1 AND (MULTIPLE? OR MULTIMER?)

L3 0 S L1 AND (HETEROTETRAMER? OR TETRAMER OR TETRAMERS)